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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,925	09/10/2003	Basil Karanikos		3129

7590
Wolf Greenfield
600 Atlantic Avenue
Boston, MA 02110

04/03/2006

EXAMINER

KIM, YOON YOUNG

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,925

Applicant(s)

KARANIKOS ET AL.

Examiner

Yoon-Young Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>011706</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Amendment filed on January 17, 2006.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 12-14, 17, 22-31, 33, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesser, U.S. Patent No. 6,007,853 in view of Tanner et al., U.S. Patent No. 6,602,410 B1.

Regarding Claim 12, Lesser discloses a beverage filter cartridge (Fig. 4, #10) comprising: a container (#20) having a side wall and a bottom; a filter element (#14) having a side wall and a bottom, the filter element being arranged to subdivide the interior of the container into a first chamber inside the filter element and a second chamber located outside

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the filter element, the filter element being joined to the container side wall at a peripheral juncture (Fig. 10), and the filter sidewall spaced inwardly from and out of contact with the container side wall; and a cover enclosing at least a portion of the first chamber (Col. 7, Lines 3-6). However, Lesser does not disclose the filter having corrugations formed by pleats or flutes. Tanner teaches a filter cartridge comprising corrugated side walls by pleats (Col. 11, Lines 1-2). It would have been obvious to one of ordinary skill in the art to modify Lesser with the element of Tanner in order to increase the flow rate by creating channels (Col. 11, Lines 2-4).

Regarding Claim 13, Lesser discloses that the container and filter bottoms are substantially parallel (Fig. 4).

Regarding Claim 14, Tanner discloses that the channels are defined by corrugations in the second side wall by pleats (Col. 11, Lines 1-4). It would have been obvious to one of ordinary skill in the art to modify Lesser with the element of Tanner in order to increase the flow rate by creating channels (Col. 11, Lines 2-4).

Regarding Claim 17, Lesser discloses that the height of the first chamber measured between the second bottom and the cover is between about 75 to 80% of the height of the interior of the cartridge as measured between the first bottom and the cover (Fig. 4).

Regarding Claim 22, Lesser discloses that the majority of the filter side wall is spaced inwardly from and out of contact with the container side wall (Fig. 17).

Regarding Claim 23, Lesser discloses that the container is impermeable (Col. 6, Lines 17-21) and the cover is impermeable (Fig. 8, Lines 38-42).

Regarding Claim 24, Lesser discloses that the filter bottom is vertically spaced from the container bottom (Fig. 4).

Regarding Claims 25-26, Tanner discloses that the channels are defined by corrugations in the second side wall by pleats (Col. 11, Lines 1-4). It would have been obvious to one of

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ordinary skill in the art to modify Lesser with the element of Tanner in order to increase the flow rate by creating channels (Col. 11, Lines 2-4).

Regarding Claim 27, Lesser discloses that the container has a frustoconical shape (#20).

Regarding Claim 28, Lesser discloses that the container has a collar surrounding the top opening, and the cover is sealed to the collar (Col. 7, Lines 3-6).

Regarding Claim 29, Lesser discloses that the filter element includes an upper rim, and the filter element is joined to the container at the upper rim (Fig. 9).

Regarding Claims 30-31 and 33, Tanner discloses that the channels are defined by corrugations in the second side wall by pleats (Col. 11, Lines 1-4). It would have been obvious to one of ordinary skill in the art to modify Lesser with the element of Tanner in order to increase the flow rate by creating channels (Col. 11, Lines 2-4).

Regarding Claim 44, Lesser discloses a beverage filter cartridge (Fig. 4, #10) comprising: a container (#20) having a side wall and a bottom; a filter element (#14) having a side wall and a bottom, the filter element being arranged to subdivide the interior of the container into a first chamber inside the filter element and a second chamber located outside the filter element, the filter element being joined to the container side wall at a peripheral juncture (Fig. 10), and the filter sidewall spaced inwardly from and out of contact with the container side wall; and a cover enclosing at least a portion of the first chamber (Col. 7, Lines 3-6). However, Lesser does not disclose the filter having corrugations by pleats or flutes. Tanner teaches a filter cartridge comprising corrugated side walls by pleats (Col. 11, Lines 1-2). It would have been obvious to one of ordinary skill in the art to modify Lesser with the element of Tanner in order to increase the flow rate by creating channels (Col. 11, Lines 2-4).

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3. Claims 1-2, 4, 7, 36-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesser in view of Tanner and Sweeney et al., U.S. Patent No. 6,645,537 B2.

Regarding Claim 1, Lesser discloses a beverage filter cartridge (Fig. 4, #10) comprising: a container (#20) having a bottom and a side wall extending upwardly from the bottom to a top opening; a filter element (#14) having a bottom and a side wall extending upwardly from the second bottom to an upper rim, the filter element being received in the container and joined at a peripheral juncture to the interior of the side wall (Fig. 9), the interior of the container thus being subdivided by the filter element into a first chamber accessible via the top opening, and a second chamber (between #14 and #20); a beverage medium received in the first chamber via the top opening (Col. 6, Lines 27-30); and an cover closing the top opening (Col. 7, Lines 3-6), the filter element being permeable to accommodate the flow therethrough of the beverage to the second chamber (Col. 7, Lines 10-21). However, Lesser does not disclose a piercable cover and bottom or a pleated or fluted filter. Sweeney teaches a beverage filter cartridge comprising a cover and bottom being piercable (Fig. 3, #28 30). It would have been obvious to one of ordinary skill in the art to modify Lesser with the element of Sweeney in order to admit heated liquid into the first chamber to combine with the beverage medium and exit through the second chamber (Col. 4, Lines 35-43). Tanner teaches a filter cartridge comprising pleated side walls (Col. 11, Lines 1-2). It would have been obvious to one of ordinary skill in the art to modify Lesser with the element of Tanner in order to increase the flow rate by creating channels (Col. 11, Lines 2-4).

Regarding Claim 2, Lesser discloses that the container and filter bottoms are substantially parallel (Fig. 4).

Regarding Claim 4, Tanner discloses that the channels are defined by pleats in the second side wall (Col. 11, Lines 1-4). It would have been obvious to one of ordinary skill in the

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art to modify Lesser with the element of Tanner in order to increase the flow rate by creating channels (Col. 11, Lines 2-4).

Regarding Claim 7, Lesser discloses that the height of the first chamber measured between the second bottom and the cover is between about 75 to 80% of the height of the interior of the cartridge as measured between the first bottom and the cover (Fig. 4).

Regarding Claim 36, Lesser discloses that the majority of the filter side wall is spaced inwardly from and out of contact with the container side wall (Fig. 17).

Regarding Claim 37, Lesser discloses that the container is impermeable (Col. 6, Lines 17-21) and the cover is impermeable (Fig. 8, Lines 38-42).

Regarding Claim 38, Lesser discloses that the filter bottom is vertically spaced from the container bottom (Fig. 4).

Regarding Claim 39, Lesser discloses that the container has a frustoconical shape (#20).

Regarding Claim 40, Lesser discloses that the container has a collar surrounding the top opening, and the cover is sealed to the collar (Col. 7, Lines 3-6).

Regarding Claim 41, Lesser discloses that the filter element includes an upper rim, and the filter element is joined to the container at the upper rim (Fig. 9).

Regarding Claim 42-43, Sweeney teaches a beverage filter cartridge comprising a cover and bottom being piercable (Fig. 3, #28 30). It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Tanner with the element of Sweeney in order to admit heated liquid into the first chamber to combine with the beverage medium and exit through the second chamber (Col. 4, Lines 35-43).

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4. Claims 15-16, 19-21, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesser in view of Tanner as applied to Claim 12 above, and further in view of Daswick, U.S. 3,971,305.

Regarding Claim 15-16, Daswick discloses that the filter extends downward and away from the container at an angle of less than about 1 degree (Col. 4, Lines 1-4). It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Tanner with the element of Daswick in order to provide portions spaced outwardly from the filter to allow flow freely outside the filter (Col. 4, Lines 1-5).

Regarding Claim 19-21, Lesser in view of Tanner does not disclose lower permeability and increased thickness in the lower region of the filter element. Daswick teaches a beverage filter cartridge wherein reduced permeability is achieved by increasing the thickness by lining the lower region of the filter element with an insert (Fig. 2, #28) of like filter material. It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Tanner with the element of Daswick in order to retain the beverage media within the filter (Col. 3, Lines 11-15).

Regarding Claim 32, Lesser in view of Tanner does not disclose flutes. Daswick teaches a filter cartridge comprising flutes (Col. 4, Lines 4-8). It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Tanner with the element of Daswick in order to provide portions spaced outwardly from the filter to allow flow freely outside the filter (Col. 4, Lines 1-5).

5. Claims 3, 5-6, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesser in view of Sweeney and Tanner as applied to Claim 1 above, and further in view of Daswick.

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Regarding Claim 3, Lesser in view of Sweeney and Tanner does not disclose flutes. Daswick teaches a filter cartridge comprising flutes (Col. 4, Lines 4-8). It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Sweeney and Tanner with the element of Daswick in order to provide portions spaced outwardly from the filter to allow flow freely outside the filter (Col. 4, Lines 1-5).

Regarding Claim 5-6, Daswick discloses that the filter extends downward and away from the container at an angle of less than about 1 degree (Col. 4, Lines 1-4). It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Sweeney and Tanner with the element of Daswick in order to provide portions spaced outwardly from the filter to allow flow freely outside the filter (Col. 4, Lines 1-5).

Regarding Claim 9-11, Lesser in view of Sweeney and Tanner does not disclose lower permeability and increased thickness in the lower region of the filter element. Daswick teaches a beverage filter cartridge wherein reduced permeability is achieved by increasing the thickness by lining the lower region of the filter element with an insert (Fig. 2, #28) of like filter material. It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Sweeney and Tanner with the element of Daswick in order to retain the beverage media within the filter (Col. 3, Lines 11-15).

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lesser in view of Tanner as applied to Claim 12 above, and further in view of Michielsen, U.S. Patent No. 3,389,650.

Regarding Claim 18, Lesser in view of Tanner does not disclose channels increasing in width. Michielsen teaches a beverage filter cartridge comprising exit channels that increase in width to a maximum adjacent the filter bottom. (Fig. 1, #2). It would have been obvious to one

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of ordinary skill in the art to modify Lesser in view of Tanner with the element of Michielsen because it is a corrugated structure common in the filter art.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lesser in view of Sweeney and Tanner as applied to Claim 1 above, and further in view of Michielsen.

Regarding Claim 8, Lesser in view of Sweeney and Tanner does not disclose channels increasing in width. Michielsen teaches a beverage filter cartridge comprising exit channels that increase in width to a maximum adjacent the filter bottom. (Fig. 1, #2). It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Sweeney and Tanner with the element of Michielsen because it is a pleated structure common in the filter art.

8. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesser in view of Tanner as applied to Claim 12 above, and further in view of Sweeney.

Regarding Claim 34-35, Lesser in view of Tanner does not disclose a piercable cover and bottom or a pleated or fluted filter. Sweeney teaches a beverage filter cartridge comprising a cover and bottom being piercable (Fig. 3, #28 30). It would have been obvious to one of ordinary skill in the art to modify Lesser in view of Tanner with the element of Sweeney in order to admit heated liquid into the first chamber to combine with the beverage medium and exit through the second chamber (Col. 4, Lines 35-43).

Response to Arguments

9. Applicant's arguments with respect to Claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.

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Lesser in view of Tanner, Daswick, Michielsen, and Sweeney teach the invention as claimed.


Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yoon-Young Kim whose telephone number is (571) 272-2240. The examiner can normally be reached on 8:30-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YK
03/28/06


JOHN S. KIM
PRIMARY EXAMINER